

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/012563

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ C07D265/36, 413/04, 413/10, 417/04, A61K31/538, 45/00,
A61P11/00, 11/06, 43/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ C07D265/36, 413/04, 413/10, 417/04, A61K31/538, 45/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
REGISTRY/CAPLUS/MEDLINE/EMBASE/BIOSIS (STN), JSTplus (JOIS)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	TOUZEAU, F. et al., Synthesis and Biological Evaluation of New 2-(4,5-Dihydro-1H-imidazol-2-yl)-3,4-dihydro-2H-1,4-benzoxazine Derivatives, Journal of Medicinal Chemistry, 2003, Vol.46, No.10, pages 1962 to 1979	1,2
X	MAYER, S. et al., Regioselective formylation of ethyl 3, 4-dihydro-2H-1,4-benzoxazine -2-carboxylate or 2-acetate derivatives, Heterocycles, 2001, Vol.55, No.10, pages 1873 to 1888	1,2
A	JP 11-92476 A (Adir et Co.), 06 April, 1999 (06.04.99) Full text & EP 894796 A1 & US 6057317 A	1-15,18

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
20 October, 2004 (20.10.04)

Date of mailing of the international search report
09 November, 2004 (09.11.04)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EVANS, J.M. et al., L-648, 0251, a novel cysteinyl-leukotriene antagonist is active by inhaled route in man, Br.J.Clin.Pharmac., 1989, Vol.28, pages 125 to 135	1-15,18
A	DENZILINGER, C. et al., Effect of the leukotriene receptor antagonists FPL 55712, LY 163443, and MK-571 on the elimination of cysteinyl leukotrienes in the rat, Br.J. Pharmacol., 1991, Vol.102, pages 865 to 870	1-15,18
A	O'BYRNE, P.M. et al., Eicosanoids and Asthma, Annals of the New York Academy of Science, 1994, Vol.744, pages 251 to 261	1-15,18
A	Masato MURAKI et al., "Leukotriene Kikkoyaku no Koensho Koka", The allergy in practice, 2002, Vol.22, No.10, pages 759 to 764	1-15,18

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 16, 17

because they relate to subject matter not required to be searched by this Authority, namely:

Claims 16 and 17 pertain to method for treatment of the human body by therapy and thus relate to a subject matter which this International Searching Authority is not required, under the provisions of Article 17(2)(a)(i) of the PCT (continued to extra sheet.)

2. ☐ Claims Nos.:

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

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Continuation of Box No.II-1 of continuation of first sheet (2)

and Rule 39.1(iv) of the Regulations under the PCT, to search.

<Subject of search>

The invention claimed in claims 1-9, 11-15 and 18 covers a vast plurality of compounds. However, only some of these compounds are supported by the description within the meaning of PCT Article 6 and disclosed therein within the meaning of PCT Article 5.

Further, the language "prodrug" recited in claims 1-18 renders the scope of the invention of this application unclear because even if the contents of the description are studied, what particular compounds are covered or not covered thereby cannot be stated as being clear.

Therefore, this international search report has been established by searching prior art references on the basis of compounds concretely described in the description, namely, compounds having 1,4-benzoxazone rings having substituents at 2- and 4-positions.

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